

knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Examiner states that the supposed admitted prior art “fails to teach exposing a surface of the insulating film comprises silicon oxide to a firm formation atmosphere of the insulating film as recited in the present claim 1.” The Examiner then relies on the '150 patent stating that the '150 patent “teaches exposing a surface of the silicon oxide film 81 in the N₂/H₂/H₂O atmosphere wherein the temperature of film formation is 700 to 900°C. See col. 20, lines 29-39 and FIG. 14D.” At col. 20, lines 29-39, the '150 patent recites:

Next, as shown in FIG. 14D, selective oxidation for silicon is effected in the N₂/H₂/H₂O atmosphere in a temperature range of 700 to 900oC, while controlling the partial pressures of the gases. The selective oxidation is effected to restore the film thickness of the tunnel silicon oxide film 81 which is partly cut off at the time of etching of the polysilicon film 82 and round the corner portion 88 of the bottom portion of the polysilicon film. By the selective oxidation, only silicon is oxidized and the lowering of the reliability due to concentration of the electric field in the corner portion of the bottom portion can be prevented.”

Applicant has amended claim 1 to require that; “dry etching an upper layer pattern of an insulating film in a state where at least a part of the insulating film formed above an element separation and a substrate is exposed, and exposing a surface of the insulating film to a film formation atmosphere of the insulating film prior to forming additional layers upon the insulating

film after the dry etching.” Neither of these elements are taught in the application, the ‘150 patent or the ‘514 patent.

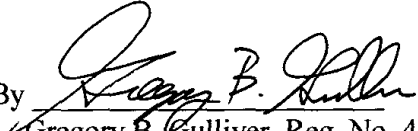
The ‘150 patent describes and shows in FIG. 14D that silicon oxide film layer 81 is being acted on. Layer 81 in the ‘150 patent is equivalent to the element separation layer 102 in the Present Application. Applicant in claim 1, requires that the exposed surface be above the element separation layer. Further, the ‘150 patent describes a step after the layers have been applied to the substrate, rather than prior to forming additional layers upon the insulating film after the dry etching as claimed by applicant. Furthermore, the ‘514 patent fails to describe the elements as claimed by the Applicant.

Therefore, the combination of the supposed admitted prior art, the ‘150 patent and the ‘514 patent fail to teach or describe all the elements of Applicant’s claims. If an element is missing, there is no chance of success when the references are combined because at least one element is still missing. Further, there can be no suggestion to combine references if to achieve the claimed invention if all the references lack at least one element. Thus, a prima facie case of obviousness has not been met and claims 1 and 2 are in condition for allowance.

Conclusion

In view of the foregoing remarks, Applicant respectfully submits that the rejections of claims 1 and 2 have been overcome and the claims are now in condition for allowance, which such action is earnestly solicited.

Respectfully submitted,
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